

- (a) transferring the nucleus of a quiescent diploid donor cell of a pre-existing, individual non-human mammal into a suitable enucleated recipient cell of a non-human mammal of the same species, thereby obtaining a reconstituted cell;
- (b) activating the recipient cell before, during or after nuclear transfer; and
- (c) incubating the reconstituted cell such that an embryo develops that is capable of developing to term and has the same set of chromosomes as the individual non-human mammal.

57. (NEW) The non-human mammalian embryo clone according to claim 56, wherein the recipient cell used in the method is an oocyte.

58. (NEW) The non-human mammalian embryo clone according to claim 56, wherein the donor cell is a cultured cell.

59. (NEW) The non-human mammalian embryo clone according to claim 56, wherein the embryo is a sheep embryo.

60. (NEW) The non-human mammalian embryo clone according to claim 56, wherein the embryo is a pig embryo.

61. (NEW) The non-human mammalian embryo clone according to claim 56, wherein the embryo is a goat embryo.

62. (NEW) The non-human mammalian embryo clone according to claim 56, wherein the embryo is a mouse embryo.

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63. (NEW) The non-human mammalian embryo clone according to claim 56, wherein the embryo is a rabbit embryo.

64. (NEW) The non-human mammalian embryo clone according to claim 56, wherein the embryo is a cow embryo.

65. (NEW) A non-human mammalian clone that has the same set of chromosomes as a pre-existing, individual non-human mammal, wherein the mammal is produced by a process comprising:

(a) transferring the embryo clone according to claim 56 to a female of the same species; and

(b) developing the embryo into a non-human mammal.

66. (NEW) The non-human mammalian clone according to claim 65, wherein the mammal is a sheep.

67. (NEW) The non-human mammalian clone according to claim 65, wherein the mammal is a pig.

68. (NEW) The non-human mammalian clone according to claim 65, wherein the embryo is a goat.

69. (NEW) The non-human mammalian clone according to claim 65, wherein the mammal is a mouse.

70. (NEW) The non-human mammalian clone according to claim 65, wherein the mammal is a rabbit.

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71. (NEW) The non-human mammalian clone according to claim 65, wherein the mammal is a cow.

72. (NEW) A non-human mammalian clone that has the same set of chromosomes as a pre-existing, individual non-human mammal, wherein the mammalian clone is prepared by a process comprising:

- (a) transferring the nucleus of a quiescent diploid donor cell of a pre-existing, individual non-human mammal into an enucleated oocyte of a non-human mammal of the same species, thereby obtaining a reconstituted cell;
- (b) activating the oocyte before, during or after nuclear transfer;
- (c) incubating the reconstituted cell such that an embryo develops;
- (d) transferring the embryo to a female of the same species; and
- (e) developing the embryo into a non-human mammal that has the same set of chromosomes as the individual non-human mammal.

73. (NEW) The non-human mammalian clone according to claim 72, wherein the donor cell is a cultured cell.

74. (NEW) The non-human mammalian clone according to claim 72, wherein the mammal is a sheep.

75. (NEW) The non-human mammalian clone according to claim 72, wherein the mammal is a pig.

76. (NEW) The non-human mammalian clone according to claim 72, wherein the mammal is a goat.

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77. (NEW) The non-human mammalian clone according to claim 72, wherein the mammal is a mouse.

78. (NEW) The non-human mammalian clone according to claim 72, wherein the mammal is a rabbit.

79. (NEW) The non-human mammalian clone according to claim 72, wherein the mammal is a cow.

80. (NEW) A non-human mammalian embryo clone that has the same set of chromosomes as a pre-existing, individual non-human mammal of the same species, wherein the non-human mammalian embryo is capable of developing to term and is cloned by nuclear transfer from a quiescent cell obtained from the pre-existing, individual non-human mammal.

81. (NEW) The non-human mammalian embryo of claim 80, wherein the non-human mammal is selected from the group consisting of cows, sheep, pigs, goats, mice, and rabbits.

82. (NEW) The non-human mammalian embryo of claim 80, wherein the cell is a cultured cell.

83. (NEW) The non-human mammalian embryo of claim 80, wherein the cell is a cell in which quiescence has been induced.

84. (NEW) The non-human mammalian embryo of claim 80, wherein the cell is a cell that is naturally quiescent.

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85. (NEW) A non-human mammalian clone that has the same set of chromosomes as a pre-existing, individual non-human mammal of the same species, wherein the non-human mammalian clone is cloned by nuclear transfer from a quiescent cell obtained from the pre-existing, individual non-human mammal.

86. (NEW) The non-human mammalian clone of claim 85, wherein the pre-existing, individual non-human mammal is selected from the group consisting of cows, sheep, pigs, goats, mice, and rabbits.

87. (NEW) The non-human mammalian clone of claim 85, wherein the cell is a cultured cell.

88. (NEW) The non-human mammalian clone of claim 85, wherein the cell is a cell in which quiescence has been induced.

89. (NEW) The non-human mammalian clone of claim 85, wherein the cell is a cell that is naturally quiescent.

90. (NEW) A reconstituted non-human mammalian embryo, wherein the embryo is cloned from a pre-existing, individual non-human mammal by a process comprising:

- (a) obtaining a cell from the pre-existing, individual non-human mammal;
- (b) genetically modifying the cell;
- (c) transferring the nucleus of the genetically modified cell into a suitable enucleated recipient cell of the same species, thereby obtaining a reconstituted cell, wherein the genetically modified cell is a quiescent cell;

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